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(54) Title: MAGNESIUM RICH COATINGS AND COATING SYSTEMS

(57) Abstract: Disclosed are methods of treating a metal to improve the metal's corrosion resistance. The method includes applying, to the surface of the metal, a coating which comprises magnesium powder and a binder. The present invention also relates to a coating composition that includes magnesium powder and a silane modified epoxy isocyanate hybrid polymer or prepolymer. The inventors have found that corrosion resistance (as determined by ProhesionTM exposure in accordance with ASTM D5894-96, which is hereby incorporated by reference) in excess of 3,000 hours on 2024 T-3 aluminum alloy can be achieved with the methods and coating compositions of the present invention.

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